S6161-VJ-FSE-010/28873

0910-LP-017-8890

TECHNICAL MANUAL FOR MIXER MODEL A120T

HOBART CORPORATION 701 RIDGE AVENUE TROY, OHIO 45374-0001 CAGE:28873

N00024-93-C-2303



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N00024-93-C-2303	AOE 10	2	2	National Steel and Shipbuilding Co.

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D. Van Patten ILS Manager

NATIONAL STEEL AND SHIPBUILDING CO. Harbor Drive at 28th Street San Diego, California 92112 Federal Code No. 81220

TECHNICAL MANUAL VALIDATION CERTIFICATE

NAVSEA 4160/3 (4-82)

TECHNICAL MANUAL TITLE

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I-VALIDATION

Except as stated in II, the technical manual identified above has been satisfactorily validated in accordance with all requirements of the applicable TMCR and the approved Validation Plan. The technical manual is hereby certified to be accurate and complete, and the information, instructions, text, and illustrations conform in all respects to the applicable general and detailed specifications.

II-EXCEPTIONS

EXCEPTIONS

AUTHORIZED BY

SIGNATURE OF PUBLICATIONS QUALITY ASSURANCE OFFICER

DATE

AUGUST 7, 1997

TABLE OF CONTENTS

Description Pag
GENERAL
INSTALLATION
UNPACKING
OPERATION
CONTROLS 2 MIXING 2 Bowl 2 Agitator 2 Attachments 3 CLEANING 4
MAINTENANCE
LUBRICATION Motor
Figure & Parts List
Figure 6 Parts List 7 TRANSMISSION GEAR UNIT 7
Figure
Figure
Figure & Parts List
Figure & Parts List
Figure & Parts List

GENERAL

The model A120T mixer is a 12 quart, bench-type mixer with a 1/3 H.P. Hobart-built motor, a #12 attachment hub, and a 0 - 15 minute timer.

There are a variety of attachments and accessories available for all models, and these are explained in a separate *Use and Applications Handbook* which is supplied with each mixer.

INSTALLATION

UNPACKING

Immediately after unpacking the mixer, check for possible shipping damage. If this machine is found to be damaged after unpacking, save the packaging material and contact the carrier within 15 days of delivery.

Prior to installation, test the electrical service to assure that it agrees with the specifications on the machine data plate.

LOCATION

Place the mixer on a suitable sturdy level surface. There should be adequate space around the mixer for the user to operate the controls and install and remove bowls.

Holes are provided in the base to permanently secure the mixer, although this is not necessary in normal installations. Four plastic plugs are supplied with the mixer to plug these holes if they are not used.

ELECTRICAL CONNECTIONS (Cord Connected Mixers)

WARNING: THE ELECTRICAL CORD ON THIS MACHINE IS EQUIPPED WITH A THREE-PRONGED GROUNDING PLUG WHICH MUST BE CONNECTED TO A PROPERLY GROUNDED RECEPTACLE. IF THE RECEPTACLE IS NOT THE PROPER GROUNDING TYPE, CONTACT AN ELECTRICIAN. DO NOT REMOVE THE GROUNDING PRONG FROM THE PLUG.

OPERATION

WARNING: MOVING BEATER IN BOWL. KEEP HANDS, CLOTHING, AND UTENSILS OUT WHILE IN OPERATION.

CONTROLS

All models are furnished with an On-Off toggle switch which controls power to the mixer.

The TIMER is used in conjunction with the On-Off switch for timed mixing operations and will stop the mixer when the desired time has elapsed.

With the timer set on HOLD, the mixer will run until the On-Off switch is turned to Off.

The GEAR SHIFT LEVER (Fig. 1) is used to change speeds. Always stop the mixer before changing speeds. To change speeds, turn the switch Off, move the gear shift lever to the desired speed, and turn the switch back On.

Speed 1 (Low) — This speed is for heavy mixtures such as bread dough, heavy batters, and potatoes.

Speed 2 Medium) —This speed is for light dough which must rise quickly, cake batters, and some whipping operations.

Speed 3 (High) — This is a fast speed for light work such as whipping cream, beating eggs, and mixing thin batters.

The BOWL LIFT HANDLE (Fig. 1) is used to raise and lower the bowl. To raise the bowl, rotate the handle upward; rotating the handle downward lowers the bowl.

MIXING

This section explains operation of the mixer and how to install bowls, agitators, and attachments. A separate *Use and Applications Handbook* is provided with the mixer which contains information on mixing procedures and outlines specific uses for agitators, attachments, and accessories.

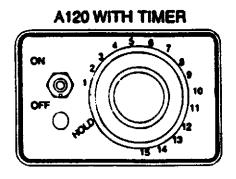
Bowl

New mixer bowls and agitators (beaters, whips, and dough arms) should be thoroughly washed with hot water and a mild soap solution, rinsed with either a mild soda or vinegar solution, and thoroughly rinsed with clear water BEFORE being put into service. This cleaning procedure should also be followed for bowls and agitators before whipping egg whites or whole eggs.

The bowl must be installed before the agitator. To install the bowl, fully lower the bowl support (Fig. 1). Position the bowl so the alignment bracket on the back of the bowl is in the bowl retainer and the alignment pins (Fig. 1) on the front of the bowl support fit in the holes on the sides of the bowl. Lock the bowl in place by rotating the bowl clamps (Fig. 1) over the ears of the bowl.

Agitator

To install an agitator (Fig. 1), the bowl must be installed and fully lowered. Place the agitator in the bowl, push it up on the agitator shaft, and turn it clockwise to seat the shaft pin in the slot of the agitator shank.



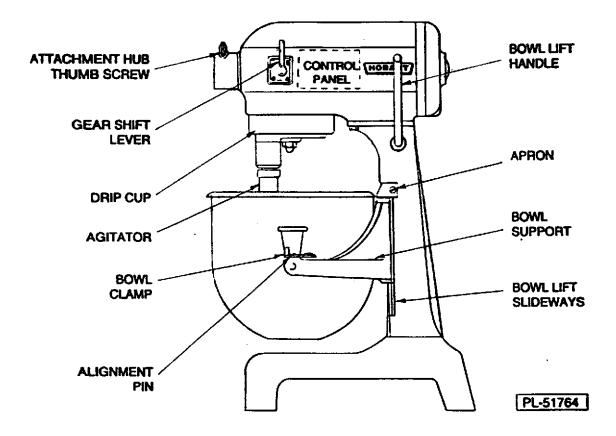


Fig. 1

Attachments

To install an attachment, loosen the thumb screw on the attachment hub (Fig. 1) and remove the plug. Insert the attachment into the attachment hub making certain that the square shank of the attachment is in the square driver of the mixer. Secure the attachment by tightening the thumb screw.

Move the gear shift lever to the desired speed and start the mixer to operate the attachment.

The meat and food chopper attachment should be operated in second or third speed. If material in the cylinder stalls the mixer, stop the mixer at once. DO NOT attempt to restart the mixer in a lower speed — remove the adjusting ring, knife, plate, and worm and clear the obstruction. THIS ATTACHMENT MUST NOT BE USED TO CHOP BREAD CRUMBS.

CLEANING

WARNING: UNPLUG MACHINE POWER CORD BEFORE BEGINNING ANY CLEANING PROCEDURE.

The mixer should be thoroughly cleaned daily.

Bowls and agitators should be removed from the mixer and cleaned in a sink.

DO NOT use a hose to clean the mixer — it should be washed with a clean damp cloth. The apron (Fig. 1) may be removed by loosening the two screws.

The drip cup (Fig. 1) should be removed periodically and wiped clean. A large flat blade screwdriver may be used to remove the drip cup.

MAINTENANCE

WARNING: UNPLUG MACHINE POWER CORD BEFORE BEGINNING ANY MAINTENANCE PROCEDURE.

LUBRICATION

Bowl Clamps (Fig. 1) should be lubricated twice a year.

Motor

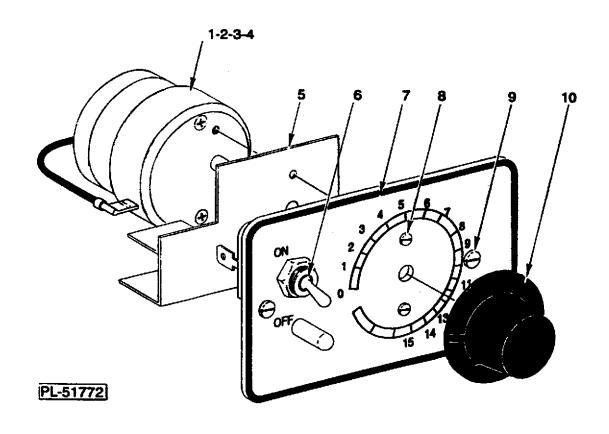
The motor has sealed ball bearings which require no lubrication maintenance.

Bowl Lift Slideways

The slideways (Fig. 1) should be lubricated once each month. Remove the apron (Fig. 1) secured by two thumb screws to expose the slideways. Then apply a light coat of Lubriplate 630AA (supplied) to three sides of both slideways. Replace the apron and thumb screws.

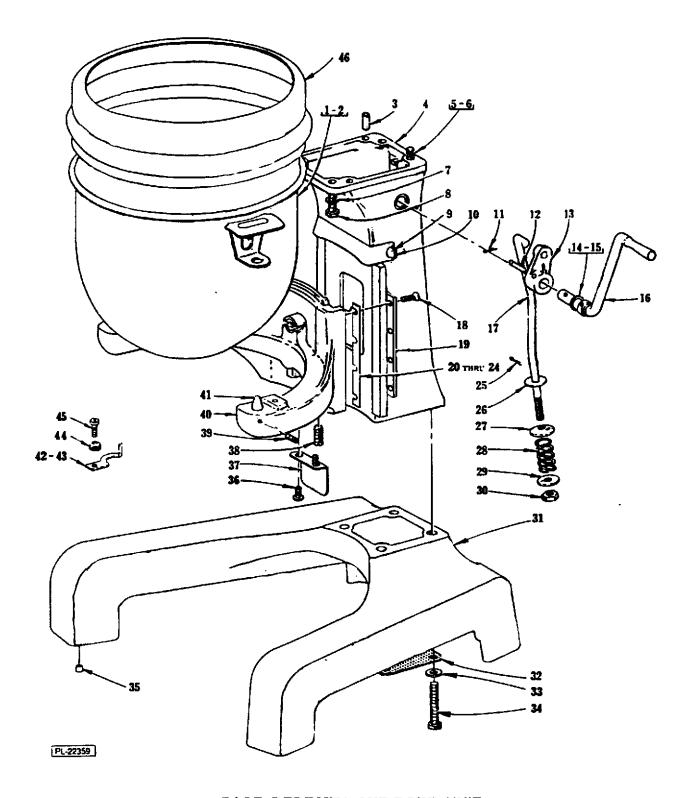
SERVICE

If service is needed on this equipment, contact your local Hobart Service Office.



SWITCH & TIMER UNIT

ILLUS. PL-51772	PART		
FC-31772	NO.	NAME OF PART	iT.
1	294650-4-5	Timer (115 V. 60 Hz.)	
2	294650-4-6	Timer (115 V., 60 Hz.) Timer (230 V., 60 Hz.)	
3	294650-4-7	Timer (230 V., 60 Hz.)	
4	294650-4-8		
5	291746	Insulator - Switch	
6	120388	Insulator - Switch	
7	438537-1		
8	SC-13-7		
9	123109	Screw 6-32 x % Serrated Hd	
10	291748	Screw 6-32 x % Serrated Hd. 2 Knob - Timer	

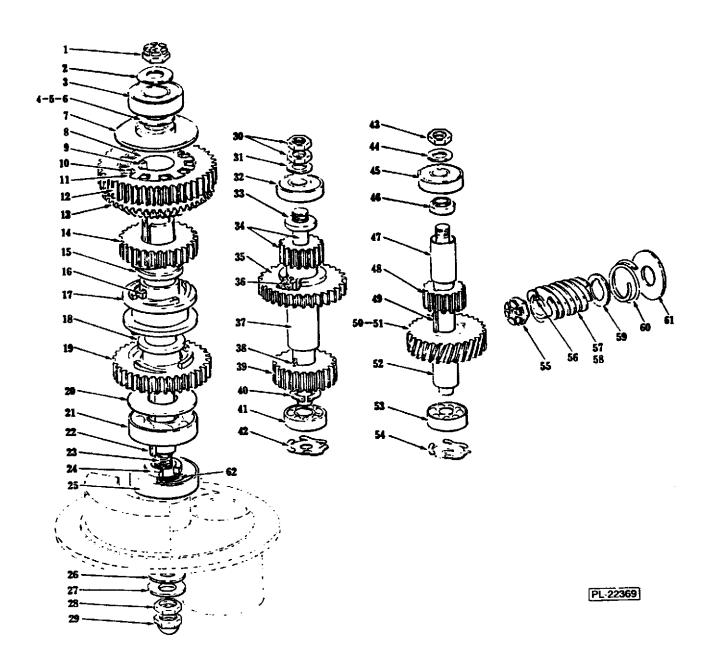


BASE, PEDESTAL AND BOWL UNIT

6

BASE, PEDESTAL AND BOWL UNIT

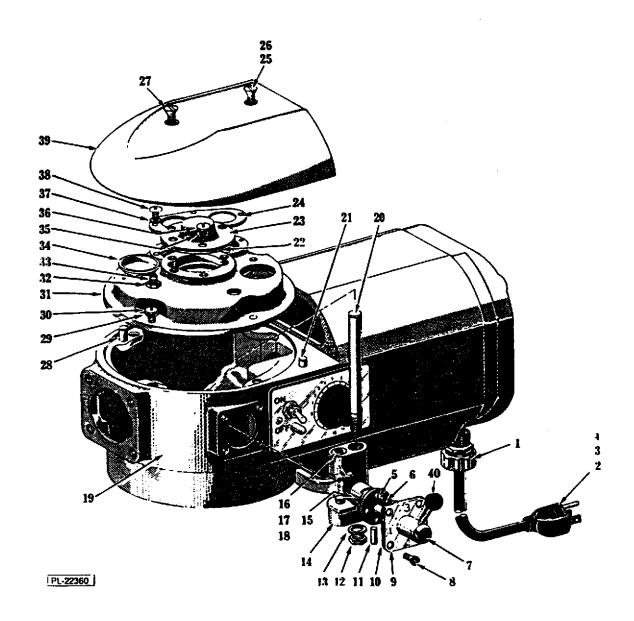
LLUS.	PART		
L-22359	NO.	NAME OF PART	AMT.
1	275682	Bowl Assy. (12 qt.) (Standard)	1
2	295643	Bowl Assy. (12 qL) (SST)	1
3	270776	Dowe!	1
4	78634-2	Pedestal (Painted)	1
5	SC-11-95	Mach, Screw %-18 x 1 Fil. Hd	2
6	WL-3-43	Lockwasher 1/2 Light	
7	WL-3-43	Lockwasher 1/4 Light	2
8	SC-38-27	Cap Screw %-18 x 1 Hex Hd	2
9	70641-11	Thumb Screw 8-32 "Special"	
10	78506	Shield - Upper Splash	1
11	PC-3-55	Cotter Pin 1/4 x 1/4	
12	PS-4-15	Spirol Pin ¼ Dia. x 1¼ Lg.	
13	114430	Arm - Bowl Lift	1
14	WS-9-11	Washer (STL)	
15	WS-9-13	Washer (Fiber)	
16	114432	Bowl Lift Handle Assy.	
17	12714	Rod - Bowl Lift	
18	SC-13-49	Mach, Screw 10-24 x 1/4 Flat Hd	
19	12715	Gib - Bowl Support	
20	16388-1	Shim - Bowl Support (.003" Thk.)	
21	16388-4	Shim - Bowl Support (.009" Thk.)	
22	16388-5	Shim - Bowi Support (.005° Thk.)	
23	16388-6	Shim - Bowl Support (.0075' Thk.)	
24	16388-7	Shim - Bowl Support (.015° Thk.)	
25	PC-3-55	Cotter Pin 1/4 x 3/4	
26	WS-6-33	Washer	
27	12745	Washer - Special	
28	12782	Soring	
29	WS-6-26	Washer	
30	NS-36-15	Stop Nut %-24 Hex "Special"	
31	271915-3	Base (Painted)	
32	108159	Screen - Air	
33	WS-18-19	Washer	
34	SC-97-53	Cap Screw %-16 x 2% Hex Hd	
35	110717-1	Plug - Base (Plug for Foot Pads) (packed 8)	
36	SC-60-56	Mach. Screw 10-32 x % Rd Hd	
37	78505	Shield - Lower Splash	
38	121625	Set Screw - Special	
39	5014-1	Stud - Bowl Jacket Hook	
40	24870	Bowl Support Assy. (Incls. items 20, 21, 24, 36, 37, 38 & 41)	
41	6938-2	Pin - Bowl Locating	
42	291444-1	Clamo - Bowl (L.H.)	
43	291444-2	Bowl Clamp (R.H.)	
44	291263	Washer - Belleville	
45	274614	Screw - Pivot	
45 46	438078	Splash Cover & Bowl Extension (12 qt.)	
-+0	111676	Shim (Use between Pedestal & Transmission Case)	
	111414		



TRANSMISSION GEAR UNIT

TRANSMISSION GEAR UNIT

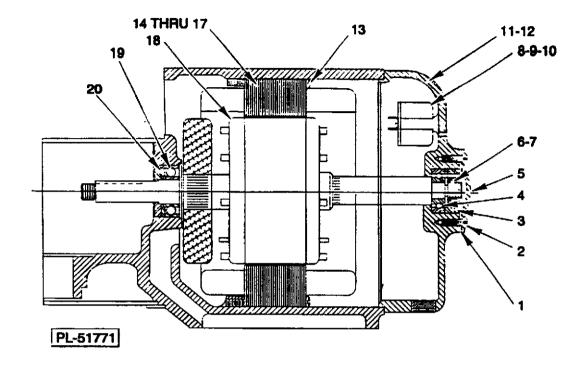
ILLUS.	PART		
PL-22369	NO.	NAME OF PART	AMI
1	NS-32-29	Stop Nut 1/4-20 "Flexioc"	•
2	WS-8-13	Washer - Retaining	!
3	BB-20-18	Ball Bearing - N.D. #77503	}
4	WS-10-18	YYASDBY - Dearing Shim (.QQ2" Thk.)	Act
5	WS-10-19	Washer - Bearing Shim (.003° Thk.)	40
6	WS-10-20	4492001 - Degrad Shim (.010- 10K.)	40
7	107145	Spacer - Planetary Spart	
8	124730	Sieeve - Roller Clutch Drive	••• I
9	109070-2	Key	I
10	124729	Clutch - Holler	10
11	124732	Spring - Holler	4.0
12	124752	Gear - Slow Speed (46T)	10
13	124733	Gear - Bevel (46T)	i
14	124744	Gear - Clutch (29T)	!
15	12695	Bearing - Clutch Gear]
16	12430-59	Key - Clutch Sleeve	<u>)</u>
17	70035-1	Sleeve - Clutch	Z
18	12695	Bearing - Clutch Gear]
19	124743	Gear - Lower Clutch (38T)	I
20	12723	Spacer - Lower]
21	BB-20-6	Ball Bearing - N.D. #7504	1
22	12430-17	Key	1
23	124734	Shaft - Planetary	1
24	437342	Spacer - Bearing	1
25	114695	Seal - Oil]
26	124946	Washer - Fiber	1
27	WS-24-1	Washer - Retaining (STL)	1
28	10928-2	Nut - Special	1
29	24715-3	Acom Nut ½ - 20	1
30	12710	Nut - Retaining	1
31	WS-6-36	Washer - Retaining	2
32	BB-5-2	Ball Bearing - N.D. #7500	1
33	12744	Spacer - Honor	1
34	291236	Spacer - Upper	1
35	124736	Shaft - Transmission (15T)	1
36	435297	Key	1
37	12697	Spacer - Lower	1
38	435297	Kaw	1
39	124760	Key	1
40	RR-4-18	Retaining Ring	1
41	BB-5-1	Rall Resign - N.O. #2200	1
42	SL-2-8	Spring - Preloading - N.D. #S-10-B	1
43	12710	Nut - Retaining	1
44	WS-6-36	Washer - Retaining	1
45	88-5-2	Washer - Retaining	1
46	124745	Washer	1
47	124765-1	Spacer - Gear	1
48	124748	Gear (15T)	1
49	12430-4	Gear (15T)	1
50	124751-3	Worm Wheel & Bushing Assy. (60 Hz.)	1
51	124749-2	Worm Wheel & Bushing Assy. (50 Hz.)	1
52	291128	Shaft - Worm Wheel	1
53	BB-5-1	Ball Bearing - N.D. #3200	1
54	SL-2-8	Spring - Preloading - N.D. #S-10-B	1
55	NS-32-23	Lock Nut 1/4-20 "Flexioc"	I
56	12747	Key	I
57	291221	Worm (5T)(60 Hz.)]
58	70 407	Worm (5T)(50 Hz.)]
59	12754	Washer	1
60	12757	Spring - Shock Absorber	1
61	12711	Washer - Shock Absorber Spring	1
62	67500-78	"O" Ring	1
	292799	Planetary Shaft Assy.(Incls. items 7, 8, 9, 12 thru 20 & 23)]
	292800	Transmission Shaft Assy. (Incls. items 33 thru 40)	1
	292798-1	Worm Wheel Shaft Assy. (60Hz.)(Incls. items 46 thru 50 & 52)]
	292798-2	Worm Wheel Shaft Assy. (50 Hz.)(Incis. items 46 thru 49, 51 & 52)	1
	-		1



TRANSMISSION CASE AND SHIFTER UNIT

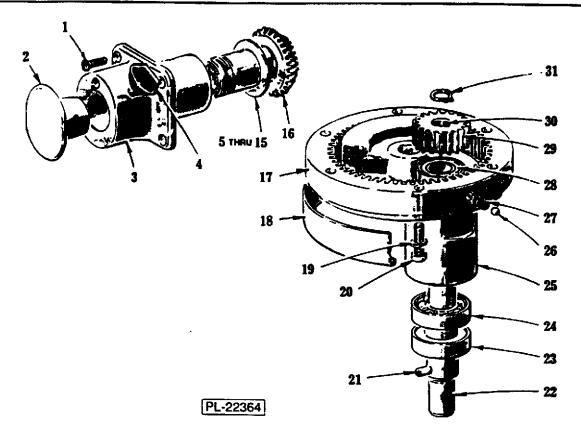
TRANSMISSION CASE AND SHIFTER UNIT

ILLUS.	PART		
PL-22360	NO.	NAME OF PART A	MT.
1	FE-22-84	Connector - Strain Relief	.1
2	117542-61	Cord & Plug Assy. (3 Cond., Under 150 V.)	1
3	117542-62	Cord & Plug Assy. (3 Cond., 200-250 V.)	
4	117542-63	Cord Assy. (I.E.C.)	
5	BA-2-9	Ball ¼ Dia.	
6	111170	Spring - Detent	
7	437339	Shifter Handle Assy. (Inds. Item 40)	
8	SC-30-24	Mach. Screw 10-24 x ½ Oval Hd)	4
9	290115-1	Plate - Shifter Index	
10	23946	Gasket - Shifter Index Plate	
11	PS-3-8	Spirol Pin 1/4 Dia. x 1/4 Lg.	
12	NS-13-22	Full Nut %-16 Hex	1
13	WL-4-2	Lockwasher ¾ Light	1
14	13160	Yoke - Shifter	
15	114506	Cam - Gear Shifter	
16	12733	Plunger - Shifter Yoke	2
17	12734	Spring - Shifter Yoke	2
18	12732	Retainer - Shifter Yoke Spring	
19	118039-2	Case - transmission (Incls. items 21 & 28)	
20	12735	Rod - Shifter Guide	
21	11800-61	Dowel	
22	20395	Retainer - Bearing	
23	20394-1	Cap - Bearing Retainer	
24	12708	Retainer - Twin Bearing	
25	NS-9-36	Mach. Nut 12-24 Hex	2
26	SC-15-57	Mach. Screw 12-24 x 1½ Oval Hd	
27	SC-16-17	Mach. Screw 12-24 x 11/4 Oval Hd	
28	11800-116	Dowel	. i
29	WL-3-28	Lockwasher 12 Light	4
30	SC-119-7	Mach. Screw 12-24 x 1/2 Hex Hd	4
31	67750	Transmission Shaft Support & Screw Assy. (Incls. items 32 & 33)	. 1
32	NS-9-36	Mach. Nut 12-24 Hex	
33	SC-8-56	Mach. Screw 12-24 x 1/2 Rd. Hd	. 1
34	64871	Plug - Friction	
35	WL-3-28	Lockwasher 12 Light	.3
36	SC-8-48	Mach. Screw 12-24 x 1/2 Rd. Hd	.3
37	WL-3-22	Lockwasher 10 Light	
38	SC-18-1	Mach. Screw 10-24 x 1/4 Pan Hd.	
39	18231-1	Cover - Transmission Case	
40	77401	Knob - Shifter Handle	1
	79999	Shifter Assy. (Incls. items 5, 6, 7, 9, 11 & 15)	



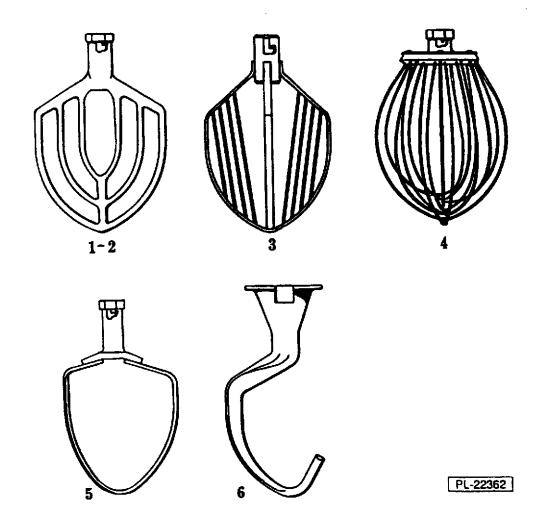
MOTOR PARTS

ILLUS.	PART		
PL-51771	NO.	NAME OF PART	AMT.
1	24464	Gasket - Cover Cap	1
2	SC-10-32	Mach. Screw 8-32 x % Truss Hd.	4
3	126 69	Spacer - Bearing	1
4	8 B -17-5	Ball Bearing N.D. #7601	. 1
5	294306-1	Cap - Cover (Deluxe)	1
6	11430	Nut - Special	,
7	WS-7-9	Washer - Special	1
8	271612-2	Switch - Electronic Start (50/60 Hz.)	1
9	271794-1	Standoff - Switch	
10	SC-9-64	Mach. Screw 6-32 x 1 Rd. Hd.	2
11	438536-2	Bracket - Bearing (Painted)	1
12	SC-16-31	Mach. Screw 12-24 x 2 Oval Hd	î
13	SC-12-59	Mach. Screw 10-24 x 21/4 Fil. Hd	₹
14	65477-164-1	Stator Assy. (115 V., 60 HZ)	4
15	65477-164-5	Stator Assy. (230V., 60 HZ)	1
16	65477-164-2	Stator Assy. (115V., 50 HZ)	1
17	65477-164-6	Stator Assy. (220 V., 50 HZ)	1
18	22275-274	Rotor Assy	••••
19	BB-5-30	Ball Bearing - N.D #C8503	···· 1
20	13174-1	Deflector - Grease	1
	SC-18-77	Mach. Screw 6-32 x ⅓s Phil Pan Hd.	I
	WL-3-9	Lockwasher 6 Medium	
	70487-18	Capacitor	
	271937	Clip - Capacitor Retaining	



PLANETARY AND ATTACHMENT HUB UNIT

ILLUS.	PART		
PL-22364	NO.	NAME OF PART	AMT.
1	SC-13-71	Mach. Screw 12-24 x % Fiat Hd	4
2	114832-1	Plug - Attachment Hub	1
3	435047-4	Hub - Attachment (Painted)	
4	108197-1	Thumb Screw	1
5	12746-5	Washer - Thrust (.080)	AR
6	1 2746-6	Washer - Thrust (.106)	AR
7	12746-7	Washer - Thrust (.092)	
8	12746-8	Washer - Thrust (.086)	AR
9	1 2746-9	Washer - Thrust (.098)	AA
10	12746-10	Washer - Thrust (.112)	
11	12746-12	Washer - Thrust (.119)	AR
12	12746-13	Washer - Thrust (.121)	AR
13	12746-16	Washer - Thrust (.129)	AR
14	12746-18	Washer - Thrust (.117)	API
15	12746-19	Washer - Thrust (.115)	AR
16	435065	Bevel Drive Gear & Seal Assy.	1
17	12 682	internal Gear Assy. (56T)(Incls. items 26 & 27)	1
18	12684-1	Cup - Drip	
19	WL-3-35	Lockwasher ¼ Helical	6
20	SC-40-8	Cap Screw 14-20 x 1 Soc. Hd.	6
21	6 5062-2	Pin	1
22	113949	Agitator Shaft Assy. (Incls. item 21)	1
23	121814	Seal - Oil ('%' I.D.)	1
24	88-17-12	Ball Bearing - N.D. #7503	1
25	113953	Planetary	1
26	8A-2-9	Ball ¼ Dia.	2
27	7094	Spring	2
28	BB-17-12	Ball Bearing - N.D. #7503	
29	12683	Pinion - Beater (17T)	
30	12430-48	Key - 1/4 Sq. x 1/4 Lg.	1
31	RR-4-18	Retaining Ring	1



AGITATORS

ILLUS. PL-22362	PART NO.	NAME OF PART	AMT.
1	275549	*B* Flat Beater (Standard)	1
2	275551	"B" Flat Beater (SST)	1
3	295166	*C* Wing Whip	1
4	275895	*D* Wire Whip (SST)	1
5	315692	"P" Pastry Knife	1
6	275930	E Dough Arm	1

Ref: NAVSEAINST	160.3A NAVSEA	S0005-AA-GYD-030/	ТММР			
NAVSEA/SPAWAR TECHNICAL MANUAL DEFICIENCY/EVALUATION REPORT (TMDER)						
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